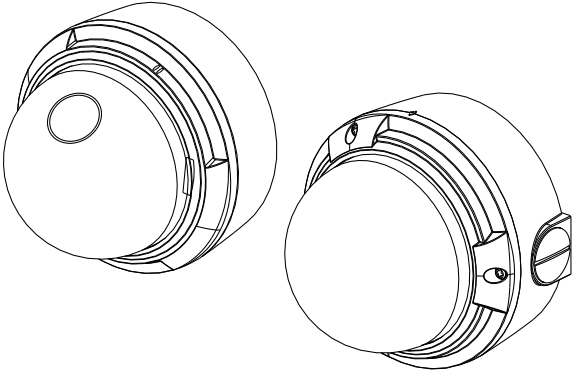
Polaris Vision3
Day & Night Dome Camera

P/N 01.BMS.11.0071401B
V1.00

INSTRUCTION MANUAL

DIGIMERGE

Polaris Vision3
Day & Night Dome Camera



Vandal Model: DPV34D

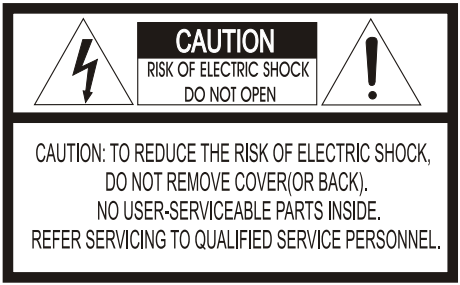
Indoor Model: DPD34D

Please read this manual thoroughly before use and keep it handy for future reference.

WARNINGS AND CAUTIONS:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECTS THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

CAUTION:


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER(OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

EXPLANATION OF GRAPHICAL SYMBOLS

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

PRECAUTIONS

Safety ----------

Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by the qualified personnel before operating it any further.

Unplug the unit from the wall oulet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials(curtains, draperies) that may block the ventilation holes.

Installation ----------

Do not install the unit in an extremely hot or humid place or in a place subject to excessive dust, mechanical vibration.

The unit is not designed for submersion in water.

Cleaning ----------

Clean the unit with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the unit.

Retain the original carton and packing materials for safe transport of this unit in the future.

FCC COMPLIANCE STATEMENT

FCC INFORMATION : THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

CAUTION : CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMÉRIQUE DE LA CLASSE A EST CONFORME À LA NORME NMB-003 DU CANADA.

CE COMPLIANCE STATEMENT

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

IMPORTANT SAFEGUARDS

1. READ AND RETAIN INSTRUCTIONS
Read the instruction manual before operating the equipment. Retain the manual for future reference.

2. CLEANING
Turn the unit off and unplug from the power outlet before cleaning. Use a damp cloth for cleaning. Do not use harsh cleansers or aerosol cleaners.

3. ATTACHMENTS
Do not use attachments unless recommended by the manufacturer as they may affect the functionality of the unit and result in the risk of fire, electric shock or injury.

4. MOISTURE
Do not use equipment near water or other liquids.

5. ACCESSORIES
Equipment should be installed in a safe, stable location. Any wall or shelf mounting accessory equipment should be installed using the manufacturer's Instructions. Care should be used when moving heavy equipment. Quick stops, excessive force, and uneven surfaces may cause the equipment to fall causing serious injury to persons and objects.

6. VENTILATION
Openings in the equipment, if any, are provided for ventilation to ensure reliable operation of the unit and to protect if from overheating. These openings must not be blocked or covered

7. POWER SOURCES
The equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied at the installation location, contact your dealer. For equipment designed to operate from battery power, refer to the operating instructions.

8. GROUNDING OR POLARIZATION
Equipment that is powered through a polarized plug (a plug with one blade wider than the other) will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. Do not defeat the safety purpose of the polarized plug.

Alternate Warning: If the equipment is powered through a three-way grounding-type plug, a plug having a third (grounding) pin, the plug will only fit into a grounding-type power outlet. This is a safety feature. Do not defeat the safety purpose of the grounding-type plug. If your outlet does not have the grounding plug receptacle, contact your local electrician.

9. CORD AND CABLE PROTECTION
Route power cords and cables in a manner to protect them from damage by being walked on or pinched by items places upon or against them.

10. LIGHTNING
For protection of the equipment during a lightning storm or when it is left unattended and unused for long periods of time, unplug the unit from the wall outlet. Disconnect any antennas or cable systems that may be connected to the equipment. This will prevent damage to the equipment due to Lightning or power-line surges.

11. OVERLOADING
Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

12. SERVICING
Do not attempt to service the video monitor or equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

13. DAMAGE REQUIRING SERVICE
Unplug the equipment from the wall outlet and refer servicing to qualified service personnel under the Following conditions:

A. When the power supply cord or the plug has been damaged.
B. If liquid has spilled or objects have fallen into the Unit.
C. If the equipment has been exposed to water or other liquids.
D. If the equipment does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage to the unit.
E. If the equipment has been dropped or the casing Damaged.
F. When the equipment exhibits a distinct change in performance.

14. REPLACEMENT PARTS
When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

15. SAFETY CHECK
Upon completion of any service or repairs to the equipment, ask the service technician to perform safety checks to verify that the equipment is in proper operating condition.

16. FIELD INSTALLATION
The installation of equipment should be made by a qualified service person and should conform to all local codes.

17. *CAUTION-these servicing instructions are for use by qualified service personnel only. to reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.*

17-1 *Regulated Class 2 power source only.*

17-2 *Do NOT use power source other than that specified.*

FEATURES

All Models Feature:

- 1/3" Sony Ex-View™ II 960H
- 2.8-10.5mm Varifocal Day/Night Lens F1.4 DC Iris
- Excellent low light performance using Polaris Vision3
- 0.03Lux/F1.2 (Color)
- 0.00002Lux w/Sense-Up at x512
- 700+ TV lines of resolution
- 3D Digital Noise Reduction (3D-DNR)
- Advanced Shadow Reduction (D-WDR)
- OSD menu control
- Privacy Masking / Motion Detection
- VIDEO OUT(BNC)
- Operates in 12VDC or 24VAC
- Test Monitor Output (RCA)

DPD34D

- Indoor Dome Model
- Camera Mounting: Surface / Semi-Flush mounting

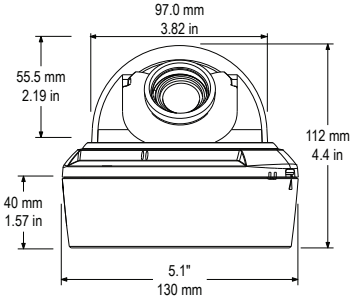
DPV34D

- Vandal Dome Model
- Camera Mounting: Surface Mounting
- Weatherproof Rated (IP66)

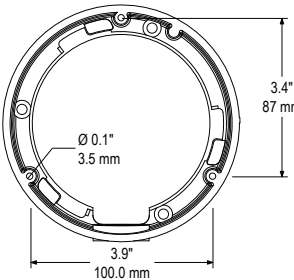
SPECIFICATIONS

General	DPD34D	DPV34D
Power source	DC 12V / AC 24V ±10%	
Power consumption	2.5Watt Max	
Minimum Power Requirement	191mA DC / 150mA AC	
Image sensor	1/3" Sony Ex-View™ II 960H	
Total pixels	976 (H) x 494 (V)	
Scanning system	2:1 interlace	
Scanning frequency	15.734KHz(H), 59.95Hz(V)	
Sync.system	Internal / Line Lock	
Resolution	700+ TV Lines	
Min.illumination	0.00002 LUX (F1.2) Slow Shutter (x512)	
Video output	1.0 Vp-p (75 ohm, composite)	
S/N Ratio	more than 50dB (AGC OFF)	
Power input	2-Pin terminal block (Detachable)	
Video output	BNC Connector (2nd video RCA)	
Lens mount	Fixed mount	
Lens	2.8 - 10.5mm F1.4 Varifocal DC Auto iris	
Operating temperature	-10~50°C	
Operating humidity	0-90% RH	

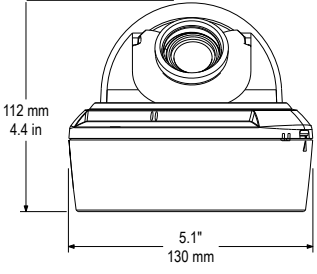
MEASUREMENTS



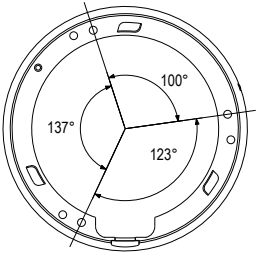
Vandal Dome Dimensions



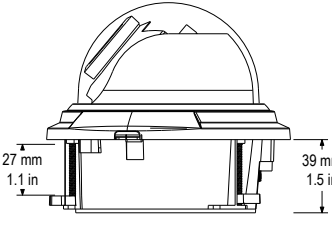
Base hole positions



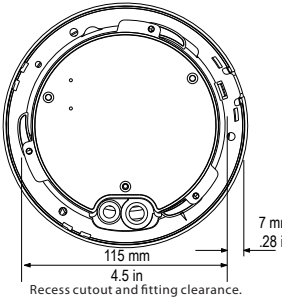
Indoor Dome Dimensions



Underside Base hole positions



Recess Mount Fitting dimensions



Recess cutout and fitting clearance.

PACKING CONTENTS

Indoor Dome package contains the following:

- Camera in housing ----------1
- Camera Locking screws (PA3 Type)----------2
- Instruction guide (This Document)----------1
- Surface & Flush Mounting Templates----------2
- RCA - BNC test cable----------1
- Junction Box Plate----------1
- Mounting screw pack ----------1

Locking Screw | Conduit Key | Allen Key

Vandal Dome package contains the following:

- Camera in housing ----------1
- Camera Locking screws (PM4 Type) ----------3
- Instruction guide (This Document)----------1
- Surface Mounting Template ----------1
- RCA - BNC test cable----------1
- Junction Box Plate----------1
- Mounting screw pack ----------1
- Tamper allen key----------1
- Conduit Key ----------1

Mounting Screws Pack.
3pc 70mm / 2.8in Screws
3pc 30mm / 1.2in Screws
3pc 40mm 1.6in plugs

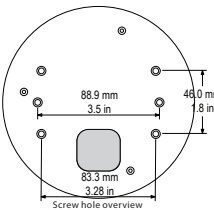
JUNCTION BOX PLATE

Junction box plate allows fitting of either Vandal dome or Indoor dome to standard 2S, 4S and Octagon junction boxes.

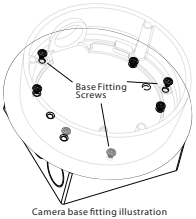
Junction Box fitting plate accessories:

- Junction Box Fiting plate ----------1
- 2S / 4S plate screws (KM3.5 Type) ----------4
- Octagon fitting screws (KM4 Type)----------2
- Base Fitting Screws PWM3 ----------3

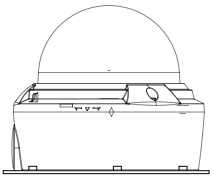
Base Fitting Screw. | Octagon Screw | 2S / 4S Screw



Screw hole overview

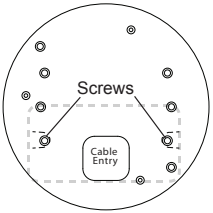


Camera base fitting illustration



Junction box fitting plate attached to camera

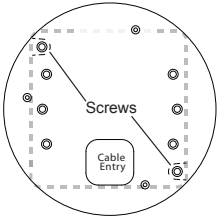
JUNCTION BOX INSTALLATION TYPES



2S FITTING

a. 2S Fitting requires only 2pcs of 2S/4S screws.

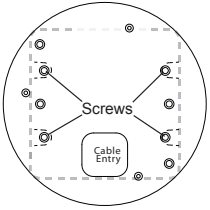
Note: You have a reduced space in which to hide cables using this type of installation. Recommended for indoor dome only.



4S FITTING

a. 4S Fitting requires 2pcs of 2S/4S screws.

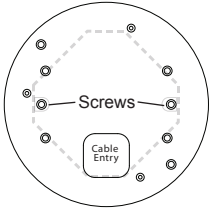
Note: Suitable for both indoor and vandal domes.



TWO GANG FITTING

a. Two gang fitting (switch box) requires 4pcs of 2S/4S screws.

Note: A two gang provides the most robust fitting. Suitable for both indoor and vandal domes.

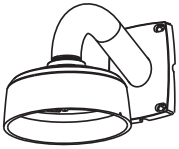


OCTAGON FITTING

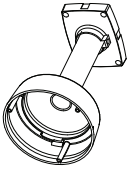
a. 4” Octagon fitting requires only 2pcs of Octagon screws.

Note: Screws used for the octagon fitting are larger compared to those used for the 2S/4S (M4 type). Suitable for both indoor and vandal domes

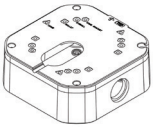
VANDAL DOME FITTINGS



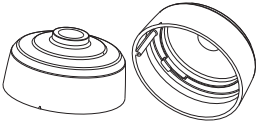
Wall Mount - model # MNTV2XW



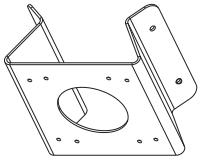
Pendant Mount - model # MNTV2XC



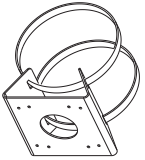
Junction Box Mount - model # MNTV2XB
Mount for either Vandal or Indoor Dome.
Can also mount MNTV2XC or MNTV2XW.



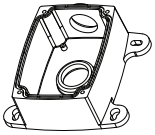
Pendant Cap - model # MNTV2XPC
Replaces the need for the camera base.
Compatible with ceiling conduit installations.



Corner Mount bracket - model # MNTV2XR
Can fit either MNTV2XW or MNTV2XJ.

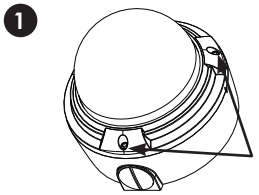


Pole Mount - model # MNTV2XP
Can fit either MNTV2XW or MNTV2XJ.



Junction Box Attachment for
MNTV2XW & MNTV2XC - model # MNTV2XJ
Fits either wall mount and ceiling mount.
Symmetrical design - reversible for top or bottom conduit.

INSTALLATION. VANDAL DOME



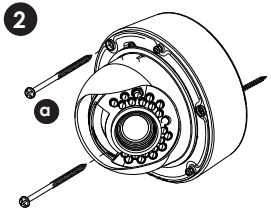
1) Loosen the three tamper screws using the provided allen key. Lift the dome cover.

Note: If you plan to use conduit fitting, remove conduit cap using the provided conduit key.

Method 1 - Direct Attach Install

2a) Use the included mounting template (Installation Option 2) to mark and pre-drill the required holes. Remove 2 of the 3 base locking screws. Use 2pc of the 2.8" screws to mount the camera directly to the mounting surface.

Remove the 3rd base locking screw and install the 3rd 2.8" screw.

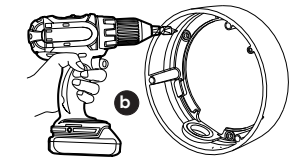


Go to step 4 on page 7 to complete installation.

OR

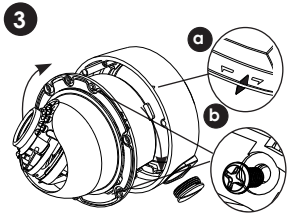
Method 2 - Camera Base Install

2b) Use the included mounting template (Installation Option 1) to mark and pre-drill the required holes. Remove the camera base by unscrewing the 3 base locking screws, and turn camera module approx. 5 degrees counter-clockwise to detach camera base from the camera module. Install the base to the correct holes as indicated on the mount template using the 1.2" screws. Go to step 3a.



Method 3 - Junction Box Install

2c) Attach provided fitting plate to junction box (see page 4 for details). Remove the camera base by unscrewing the 3 base locking screws, and turn the camera module approx. 5 degrees counterclockwise to detach camera base from camera module. Install the base to the junction box using the base attachment screws. Go to step 3a.

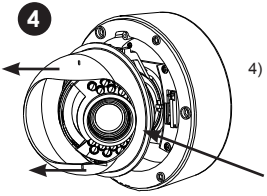


3a) Reinsert camera module into camera base by aligning the arrow notches on the edge of the camera module and the camera base (label on edge of camera module indicates the location of the arrow notch), and turning camera module clockwise to lock into place.

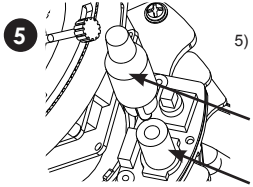
3b) Use the 3 base locking screws to secure camera base to camera module.

Go to step 4 on page 7 to complete installation.

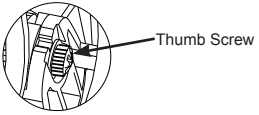
INSTALLATION. VANDAL DOME

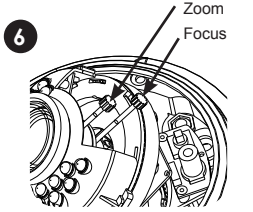


4) Remove camera cover by squeezing the back and front of the cover (as indicated by the arrow indicators) at the same time and lifting it up and away from the lens.



5) Insert the included video test cable into the RCA jack and connect to a test monitor to set up camera.



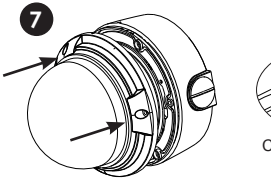


6a) Adjust camera viewing angle and secure into place by tightening thumb screw using a flat head screwdriver.

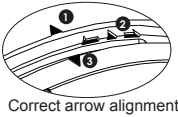
Note: Lens adjustment levers are by default in the locked position. Turn counter clockwise to unlock. Tighten levers to secure lens setting.

6b) Adjust lens and OSD as required.

6c) Re-attach the camera cover, using the thumb screw as a guide, until it snaps into place.



7a) Re-attach the dome cover. Align arrows according to the diagram below to ensure a weatherproof seal.



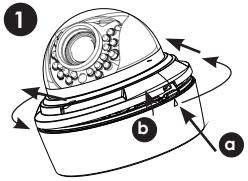
1 Arrow on camera base
2 Arrow on camera module (inside camera)
3 Arrow on dome cover.

Correct arrow alignment

7b) Use the allen key to tighten the tamper screws.

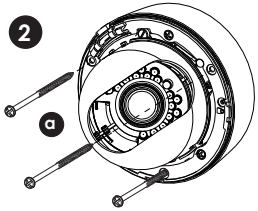
Note: Make sure dome cover cord does not get caught in the rubber seal.

INSTALLATION. INDOOR DOME (Surface Fitting)



1a) Press down on the tab marked with an arrow to lift up the dome cover slightly

1b) While pressing on tab, twist the dome cover counter clockwise just a few degrees to release dome cover from back clips.
Lift off the cover.



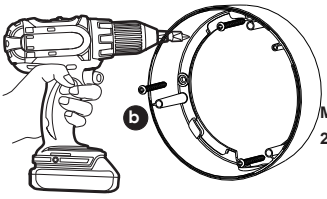
Method 1 - Direct Attach Install

2a) Use included mounting template to mark and pre-drill the required holes. Use included 2.8" screws to mount the camera directly to the mounting surface.

Go to step 3 on page 9 to complete installation.

OR

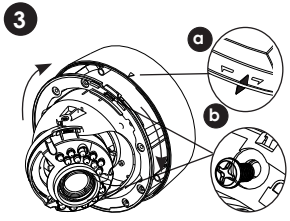
Method 2 - Camera Base Install



2b) Use the included mounting template (Installation Option 1) to mark and pre-drill the required holes. Remove the camera base by unscrewing the base locking screws (indicated by padlock markings) and turn camera module approx. 5 degrees counterclockwise to detach camera base from the camera module. Install the base as indicated using the 1.2" screws. Go to step 3a.

Method 3 - Junction Box Install

2c) Attach provided fitting plate to junction box (see page 4 for details). Remove the camera base by unscrewing the 3 base locking screws, and turn the camera module approx. 5 degrees counterclockwise to detach camera base from camera module. Install the base to the junction box using the base attachment screws. Go to step 3a.

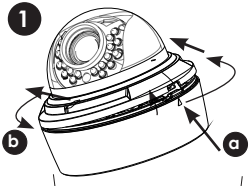


3a) Reinsert camera module into camera base by aligning the arrow notches, and turning camera module clockwise to lock into place.

3b) Reinstall the base locking screws. (indicated by padlock markings)

Go to step 3 on page 9 to complete installation.

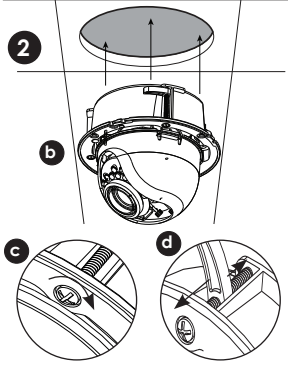
INSTALLATION. INDOOR DOME (Semi-Flush Fitting)



1a) Press down on the tab marked with an arrow to lift up the dome cover slightly

1b) While pressing on tab, twist the dome cover counter-clockwise to release dome cover

1c)Remove the camera base by unscrewing the base locking screws (indicated by a padlock markings) and turn camera module approx. 5 degrees counter-clockwise to detach camera base from the camera module.



a) Cut semi flush mounting hole into surface using provided Semi-flush Mount Cut-out Template.

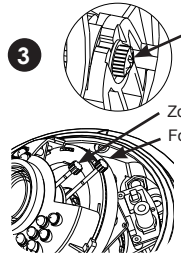
Note: Always cut using the inside line of the cutout template

b) Insert camera into cutout. Make sure that the mounting arms are not extended.

c) Turn screwdriver clockwise to unlock all of the 3 mounting arms.

d) Continue turning clockwise to move mounting arms down until they make contact with inner mounting surface.

Note: Once mounting arms have made contact with the inner mounting surface, do not apply too much pressure to avoid damaging surface.



a) Remove camera cover by squeezing the back and front of the cover as indicated by the arrow indicators at the same time and lifting it up and away from the lens.

b) Insert the included video test cable into the RCA jack and connect to a test monitor to set up camera. (see page 10).

c) Adjust camera viewing angle and secure into place by tightening thumb screw using a flat head screwdriver. Adjust lens and OSD as required.

Note: Lens adjustment levers are by default in the locked position. Turn counter clockwise to unlock. Tighten levers to secure lens setting.

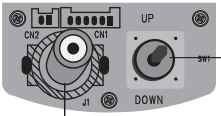
4

a) Re-attach the camera cover, using the thumb screw as a guide, until it snaps into place.

b) Reattach dome cover.

CAMERA ADJUSTMENT

RCA Service Connector
Use supplied RCA - BNC cable
If you require BNC output.



OSD function joystick. Pressing down on joystick acts as ENTER function.

MENU TREE SUMMARY

EXPOSURE	• AUTO ↵
	• HIGH LUMINANCE • MODE • BRIGHTNESS • LOW LUMINANCE • MODE
	• DSS MAX • AGC MAX
	• MANUAL ↵
	• MODE • SHUT • AGC
PIC ADJUST	• MIRROR • DIS • EZOOM ↵ • LEVEL • SHARPNESS • HUE • B-GAIN • R-GAIN
	• ZOOM • PAN • TILT
WHITE BAL	• ATW ↵
	• SPEED • DELAY CNT • ATW FRAME • ENVIRONMENT
	• PUSH • USER1/USER2 ↵ • ANTI CR • PUSHLOCK
	• B-GAIN • R-GAIN
WDR	• MODE • LEVEL • HLC • CLIP LEVEL • SCALE • BLC
DNR	• DNR MODE • LEVEL
DAY / NIGHT	• AUTO ↵
	• BURST • DELAY CNT • DAY > NIGHT • NIGHT > DAY
	• BW ↵ • COLOR • EXT
	• SMART IR ↵
	• MODE • LEVEL • GAMA OPT
PRIVACY	• AREA SEL • MODE • POSITION ↵ • COLOR • TRANSP • MOSAIC
MOTION DET	• MOTION DET • DETECT SENSE • BLOCK DISP • DETECT AREA ↵
	• MONITOR AREA ↵
OTHERS	• LANGUAGE • LENS ↵
	• AUTO ↵ • MANUAL
	• TYPE • MODE • SPEED
	• SYNC • CAMERA TITLE • WPC ↵ • VERSION ↵ • CAMERA RESET
	• INT • LL* ↵

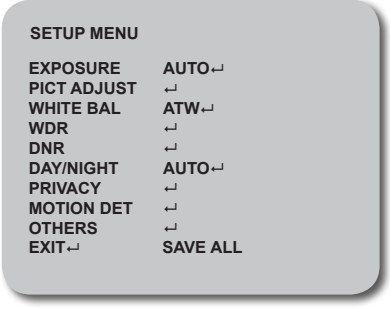
*LL (Line Lock) sub-menu is only shown when the camera is connected to AC power.

OSD MENU control

Press down on the function joystick to access the setup menu. Joystick has 4 directional buttons. Press down on the middle of the joystick to select menu options.

- Main setup menu is displayed on the monitor screen.

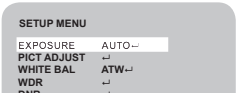
SETUP MENU



Select functions by moving the joystick up and down. Move the joystick left and right to change setting values. Press on joystick to confirm selection.
If a menu option features a ↵, a sub menu is available which can be accessed by pressing down on the joystick.

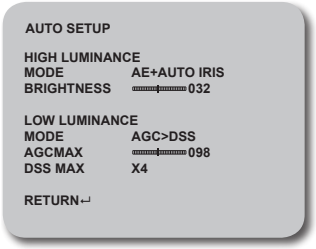
Once you have finished updating settings, highlight SAVE ALL and press down on the joystick. Then, highlight EXIT and press down on the joystick. If you do not select SAVE ALL, settings changes will be lost when the camera is rebooted.

EXPOSURE



Changes the output exposure settings a choice of AUTO(default) or MANUAL.

- **AUTO**



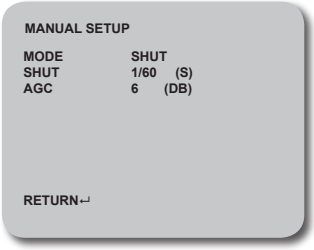
HIGH LUMINANCE
MODE: **AE+AUTO IRIS / ME+AUTO IRIS**

BRIGHTNESS: **000-255**
Brightness level of operating mode as set above.
Default setting is **128**

LOW LUMINANCE
MODE: **AGC/ SLOW / AGC-DSS / AGC-DSS-AGC / OFF**
Settings available only when using DC lens.

AGCMAX: **000-255**
Brightness level of operating mode as set above.
Default setting is **098**

DSS MAX: X1-512



- **MANUAL**

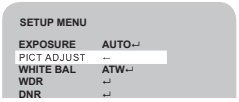
MODE: **SHUT / SLOW**
Lets you select combination of exposure modes.

SHUT: When MODE is set to SHUT, select shutter speed in x / second
1/60 ,1/100, 1/250,1/500,1/1000,1/2000, 1/4000,1/10000
Default setting is 1/60

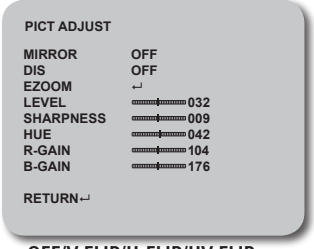
SHUT: When MODE is set to **DSS**
The shut speed can be 2,4,8,16,32,64,128,256
Default setting is 2

AGC: Set a fixed gain value for the AGC db
6,12,18,24,30,36,42,44.8

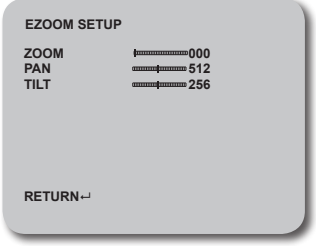
PICT ADJUST



Picture and display control settings



- **MIRROR:** **OFF/V-FLIP/H-FLIP/HV-FLIP**
  Horizontally and vertically flip the display output.
- **DIS:** **ON / OFF** Enable/Disable Digital Image Stabilization.
- **EZOOM**

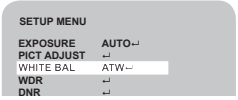


ZOOM:	000-255	Default 0
PAN:	000-1023	Default 512
TILT:	000-512	Default 256

Note: Zoom must be higher than 0 to use Pan and Tilt settings.

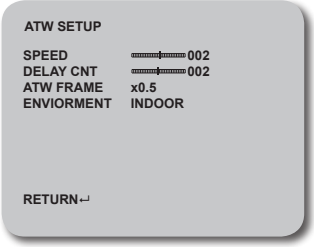
- **LEVEL:** 000-063 Screen brightness.
- **SHARPNESS:** 000-015 Screen sharpness.
- **HUE**: 000-100 Adjust the HUE value
- **R-GAIN:** 000-255 Adjust the RED gain.
- **B-GAIN:** 000-255 Adjust the BLUE gain.

WHITE BAL



White Balance can be set to following:
ATW / PUSH / USER1 / USER2 / ANTI CR / PUSH LOCK

- **ATW (Auto Trace White Balance)**



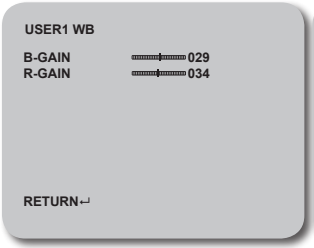
SPEED: 000-255 Specifies the AE control for ATW Default setting is **239**

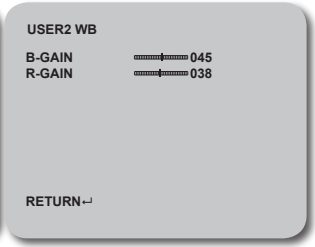
DELAY CNT: 000-255 Sets the time based of ATW change. Default setting is **16**

ATW FRAME: **x0.50 / x1.00 / x1.50 / x2.00**
Sets pull in frame for magnification
Default setting is **X0.50**

ENVIRONMENT: INDOOR / OUTDOOR
Set the pull in frame of ATW
Default setting is **OUTDOOR**

- **PUSH** Use white balance regardless of the subject conditions.
- **USER1/2** **User defined Blue and Red gain adjustment**

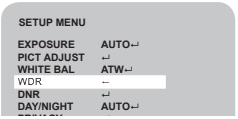




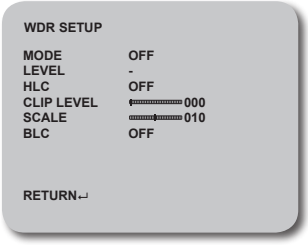
B-GAIN: 000-255 B Gain adjustment for WB
R-GAIN: 000-255 R Gain adjustment for WB

- **ANTI CR** Activates color rolling suppression.
- **PUSH LOCK** Press down on joystick to set current scene as the white balance level. Place a 18% gray card in front of the lens and select PUSH LOCK for a natural white level.

WDR



Wide Dynamic Range.

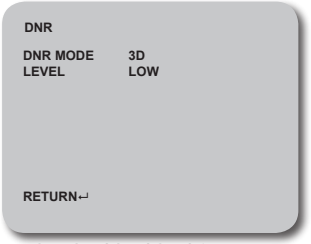


- **MODE: OFF / D-WDR**

  E: OFF / D-WDR
  D-WDR: Gamma curve, high & low luminance adjusted Default is Off
  HLC: OFF / ON / AUTO Highlight compensation.
  CLIP LEVEL: 000-255 Clipping level. Default setting is 0
  SCALE: 000-015
  BLC: OFF / ON BLC can be enabled with WDR OFF only

DNR

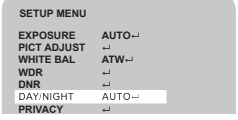
Digital Noise Reduction.
This function reduces the background noise in a low luminance environment.



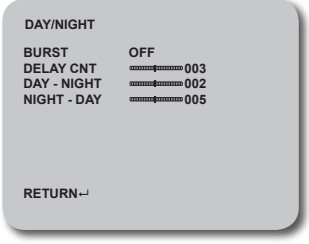
- **DNR MODE:** **2D+3D / 3D / 2D / OFF**
  Noise reduction Filter mode.

LEVEL: OFF/LOW/MIDLOW/MID/MIDHIGH/HIGH
Adjustment of the filter strength.
Default setting is LOW

DAY/NIGHT **AUTO / BW ↵/ EXT /COLOR ↵**



Day/Night mode can be set to the following options: COLOR/AUTO/EXT/BW. Select COLOR for a color image or BW for black and white. EXT allows the use of an external trigger to activate day/night operation. Use AUTO to have the camera automatically adjust for Day/Night mode.



- **AUTO**

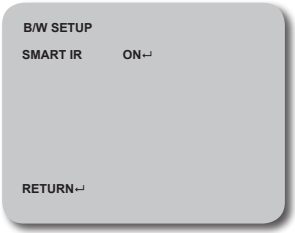
BURST: ON / OFF
Selects whether to output the burst signal when night mode has been identified.

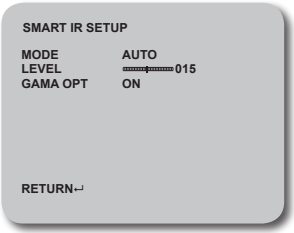
DELAY CNT: 000-255
Night/Day identification transfer time.

DAY - NIGHT: 000-255
Threshold for Night status from day status.

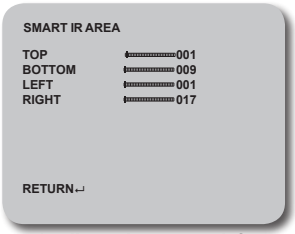
NIGHT - DAY: 000-255
Threshold for the Day status from night status.

- **BW SETUP:** Allows additional Smart IR settings to be enabled.





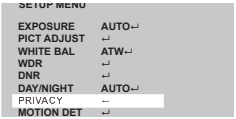
MODE: AUTO / CENTER



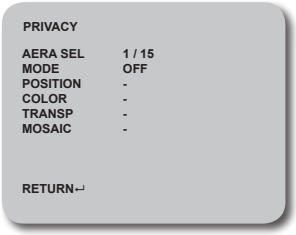
Center option under mode allows the user to define a rectangular area for the Front Light Compensation.

CAMERA ADJUSTMENT

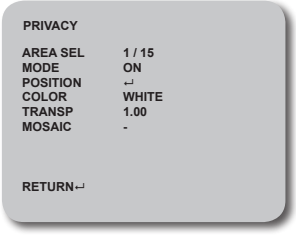
PRIVACY OFF / ON↵



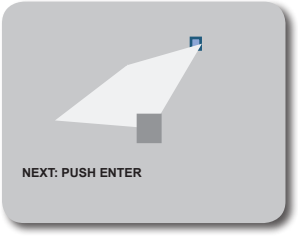
Hide an area so that it is not displayed on the monitor.



AREA SEL: Select the privacy area to be adjusted.
MODE: OFF / ON
When ON the settings below can be changed
Default OFF for all Areas



POSITION: When selected area selection screen appears:



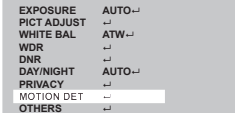
Move the joystick to move the corners (you can create any 4-sided shape). The selected side is highlighted by a small box. To select the next corner, press ENTER. To return to privacy menu, press enter repeatedly.

COLOR: BLACK, RED, GEEEN, BLUE, YELLOW, CYAN, MAGENTA, WHITE. Sets the colors of the mask frames.

TRANSP: 1.00 / 0.75 / 0.50 / 0.00 Sets the privacy area transparency.

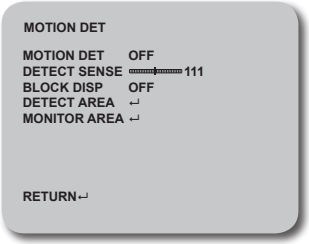
MOSAIC: ON/OFF Sets the privacy mask as mosaic. MOSAIC is not available if TRANSP is 1.00

MOTION DET



The motion detection areas of the screen are broken into 24 x 16 rectangular blocks. Use MONITOR AREA to configure always-on motion alert areas on the screen.

CAMERA ADJUSTMENT

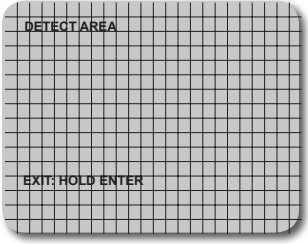


MOTION DET: OFF / ON. Turn on or off the motion detection.
Default is OFF

DETECT SENSE: 0-127 Sets the motion detection sensitivity level.

BLOCK DISP: ON/OFF: Displays blocks in areas where motion is detected.

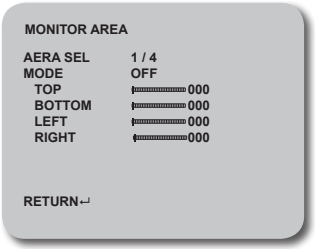
DETECT AREA: Select area of the screen to enable / disable motion detection.



Grid areas: Motion detection enabled
Transparent: Motion detection disabled

By default the entire area is enabled for detection. Using the movement arrows you move the 2x2 size block positions around the screen. Press the enter button to toggle this area to enable/diable motion detection. Hold down the enter button to return to the motion detection menu.

MONITOR AREA :
Allows you to configure up to 4 motion detection areas. Areas will be highlighted on the screen and flash when motion is detected within them. Areas will not flash if motion is detected in areas that have been disabled using DETECT AREA.

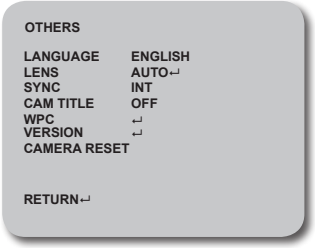


AREA SEL:	1/4, 2/4, 3/4, 4/4	**Select area to adjust.**
	When enabled, the box colors are:	
	1 Pink, 2 Green, 3 Blue, 4 Yellow	
	When areas overlap, the area with the lowest number takes priority	
MODE:	OFF / ON.	**Disable / Enable area**
TOP:	000-015	**Position of the top of the area**
BOTTOM:	000-015	**Position of the bottom of the area**
LEFT:	000-023	**Position of the left side of the area**
RIGHT:	000-023	**Position of the right side of the area**

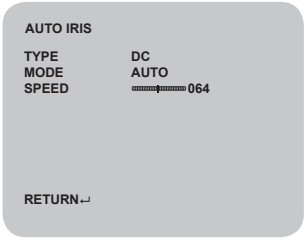
Note: TOP value cannot be greater than BOTTOM, and LEFT cannot be greater than RIGHT. Numbers automatically update to prevent invalid positions.

OTHERS

Miscellaneous camera functions.



- **LENS** **MANUAL / AUTO ↵**



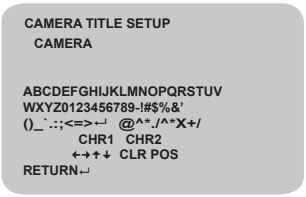
MODE: AUTO,OPEN,CLOSE
Sets the mechanical iris control mode.

SPEED: 000-255
Sets the convergence speed of the mechanical iris.

CAMERA ADJUSTMENT

- **CAM TITLE** **OFF / ON↵**

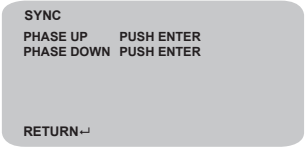
  Select a camera title to be shown on the screen.



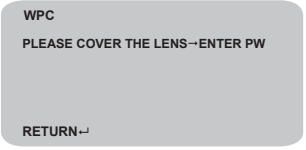
Use Up/Down/Left/Right to move around. CLR will clear info. POS allows you to change the title position.

- **SYNC**

Camera uses internal sync (INT) when camera is connected to DC power. Line Lock (LL) is used when camera is connected to AC power. If you notice color rolling when the camera is connected to AC power, select LL then select PHASE UP or PHASE DOWN and press ENTER to adjust the phase.



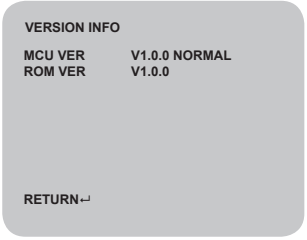
- **WPC** (Advanced function; not for normal use)



The WPC (White Pixel Compensation) features is used to correct the CCD if dead pixels are visible. You must cover the lens completely so no light can enter the camera sensor for WPC to work. Press the up, down, left, right, middle button to start the highlight of compensation. When prompts finish, press middle button to exit.

- **VERSION**

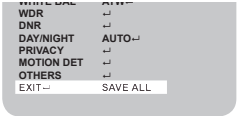
  Gives version information regarding current camera software.



- **CAMERA RESET** ↵

  This will reset all settings for all menus to manufacturer defaults.

EXIT / SAVE ALL



- **EXIT** Exit OSD menu.
  Exit will keep any changes only until camera is powered off.

- **SAVE ALL** Saves the settings to camera
  Settings are retained after camera power loss.

TROUBLESHOOTING

Follow the steps below if you are experiencing trouble with your camera. Contact Digimerge Technical Support if the issue persists.

- **Nothing appears on the screen.**
  - Check that the power cable is connected properly and that the voltage is correct.
  - Check that you have properly connected VIDEO cable to the camera VIDEO output jack and to the monitor/DVR.

- **The image on the screen is unclear.**
  - Is the lens or dome cover stained with dirt? Clean lens or dome cover with soft, clean cloth.
  - Re-position the camera if necessary.
  - Adjust the Zoom and Focus screws as needed.

- **The image on the screen is dark.**
  - If you have an intermediate device, set the impedance to 75Ω / Hi-z.
  - Adjust the monitor contrast & brightness controls.

- **Image quality is poor.**
  - Return the camera OSD to factory default settings (OSD Menu>OTHERS>CAMERA RESET).
  - Verify that the camera is receiving sufficient power.

- **There is interference in the image.**
  - The camera or the cables may be close to a source of high voltage, such as a generator. Re-position the camera if necessary.

When the resistance value of copper wire is at [20˚C(68˚F)]

Copper wire size (AWG)	#24(0.22mm²)	#22(0.33mm²)	#20(0.52mm²)	#18(0.83mm²)
Resistance (Ω/m)	0.078	0.050	0.030	0.018
Voltage Drop (V/m)	0.028	0.018	0.011	0.006

As shown in the table above, voltage decreases as the wire gets longer. Therefore use of an excessively long adapter output line for connection to the camera may affect the performance of the camera.

*Standard voltage for camera operation : DC12V ±10% or AC24V ±10%
*There may be some deviation in voltage drop depending on the type of wire and the manufacturer.

- **Be sure to connect power only after all the installation is complete.**
- **Use the UL listed, CLASS 2 power transformer for 12v DC or 24v AC adapter.**